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THE RELATIONSHIP BETWEEN DIFFICULTY OF READING MATERIAL AND ATTITUDE TOWARD READING.

BY- SCHOTANUS, HELEN D.
WISCONSIN UNIV., MADISON

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THE RELATIONSHIP BETWEEN THE DIFFICULTY OF READING MATERIAL CHOSEN AND ATTITUDE TOWARD READING WAS EXAMINED. SUBJECTS WERE 40 SECOND GRADERS. ONE-HALF OF THE SUBJECTS EXHIBTED A FAVORABLE ATTITUDE TOWARD READING, AND ONE-HALF EXHIBITED AN UNFAVORABLE ATTITUDE. THE ACTIVITY PREFERENCE TEST WAS ADAPTED FOR THE STUDY AND ADMINISTERED. AN INTERVIEW, AN INFORMAL READING INVENTORY, AND A SECOND ADMINISTRATION OF THE PREFERENCE TEST PROVIDED ADDITIONAL DATA. CORRELATION AND THE KOLMOGOROV-SMIRNOV TEST WERE USED TO ANALYZE THE DATA. CHILDREN IN BOTH THE FAVORABLE AND UNFAVORABLE ATTITUDE GROUPS CHOSE MATERIAL BELOW THEIR INSTRUCTIONAL LEVEL FOR FREE READING MATERIAL. AS A GROUP, THE SUBJECTS WITH FAVORABLE ATTITUDES WERE NOT BETTER READERS THAN THOSE WITH UNFAVORABLE ATTITUDES. EVIDENTLY, THE DIFFICULTY OF THE MATERIALS DID NOT APPEAR TO BE A SIGNIFICANT FACTOR IN DETERMINING THEIR ATTITUDE. THE SUBJECTS CHOSE EASIER MATERIALS WHETHER THEY REPORTED CONSIDERING DIFFICULTY OF MATERIAL OR NOT. A BIBLIOGRAPHY AND AN APPENDIX ARE INCLUDED. (BK)

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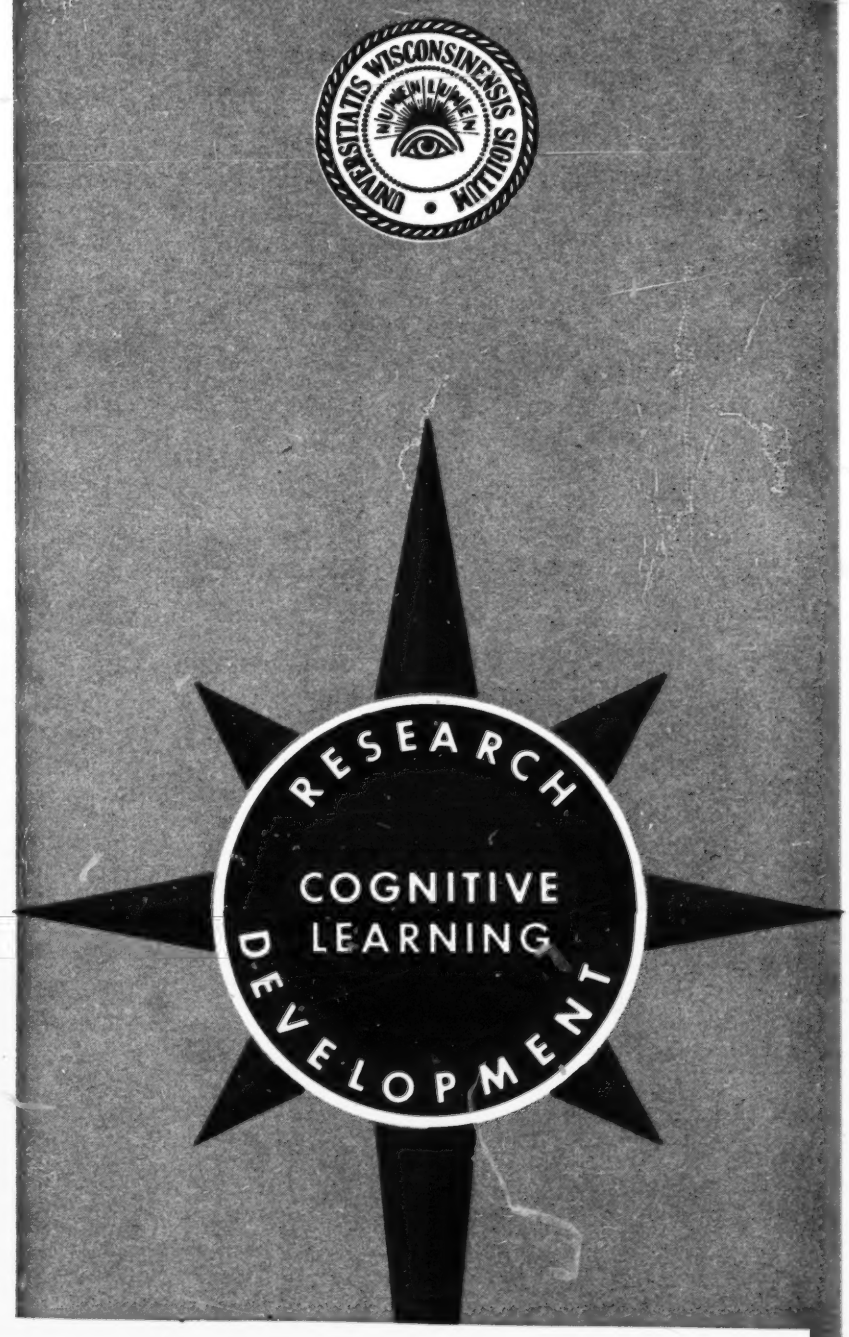

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Technical Report No. 29

THE RELATIONSHIP BETWEEN DIFFICULTY OF READING MATERIAL AND ATTITUDE TOWARD READING

Helen D. Schotanus

Based on a master's paper under the direction of
Wayne Otto
Associate Professor of Curriculum and Instruction

Wisconsin Research and Development
Center for Cognitive Learning
The University of Wisconsin
Madison, Wisconsin

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PREFACE

This technical report is based upon a master's paper in the Department of Curriculum and Instruction by Helen D. Schotanus.

Within the general framework of the R & D Center for Cognitive Learning, the goal of the Reading Project is to improve the teaching-learning of the cognitive skills involved in reading achievement, particularly at the elementary level. Two types of activity are being pursued in working toward this goal: (1) the development of a prototypic program of reading instruction, and (2) studies of instructional and organismic variables related to reading achievement. Mrs. Schotanus' study is in the latter category, but a more clear understanding of the factors that shape children's attitudes toward reading serves as a basis for changes in the instructional program. The focus of the paper is upon the relationships between attitude and the cognitive functioning of pupils in a reading situation.

The results reported here have some implications for teachers, particularly regarding the position they might take in guiding pupils' choice of materials. But aside from the immediate findings, the study poses a number of possibilities for further research. It would be interesting, for example, to replicate the study at higher grade levels in order to examine possible shifts in the relationships among attitude toward reading, reading ability, and the difficulty of reading material chosen for self-directed reading. Furthermore, the Adapted Activity Preference Test that Mrs. Schotanus has developed promises to be a useful device as children's attitudes are studied in other areas and other contexts.

Wayne Otto
Principal Investigator
Reading Project

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ABSTRACT

The purpose of this study was to examine the relationship of difficulty of reading material and attitude toward reading. As a first step an instrument was developed to measure children's attitude toward reading by requiring children to choose the activity they preferred from pairs of pictorially represented activities. Reading and six other types of activities in which second graders typically engage were presented. The test was administered to four second-grade classes, and subjects for the study were twenty pupils who indicated a favorable attitude toward reading and twenty pupils who indicated an unfavorable attitude.

During individual interviews the subjects were asked to choose materials they would enjoy reading and to indicate whether they considered the difficulty of the material in making the choice. The instructional reading level of each subject was then determined by administering an individual informal inventory, and classroom teachers indicated the level of materials each subject was using for reading instruction at the time.

Analyses of the data revealed several relationships. The children chose material below their instructional levels as being enjoyable for free-time reading. The subjects with an unfavorable attitude were more consistent in choosing easier materials, perhaps because they were less willing to put effort into an activity which they did not especially enjoy. As a group the subjects with a favorable attitude were no better readers than the subjects with an unfavorable attitude. Evidently the relative difficulty of the materials to which they had been exposed was not a significant factor in determining their attitude. The subjects did in fact choose easier materials whether they reported considering difficulty of material or not.

I

INTRODUCTION

Teaching children to read is a means to an end: adults who read for both information and enjoyment (Arbuthnot, 1940). Yet evidence indicates we have failed in many cases. Data reveal that less than one-fifth of the adult population visited a library in a year (Campbell & Metzner, 1950), that 84% of the families purchasing encyclopedias had not opened their set within a year after purchasing it (Dupee, 1956), and that elementary school pupils spend three hours a day watching television as compared with the one hour per day they apparently give to voluntary reading (Witty, 1962). Huck (1962) said that our efforts are directed toward teaching children to read, but we do not seem concerned that they do read nor with what they read.

Yet there has been concern. Almost three decades ago Gates (1940) said, "Children should be as zealous for the satisfaction of reading as for pleasures of eating, playing and talking [p. 134]." He went on to state that if they were not, proper materials were not being provided or reading activities and instruction were not being managed properly. Gates held,

> Boys and girls must be supplied with an abundance of material which they can read with the ease that you and I read Gone with the Wind, The New York Times or the Saturday Evening Post. Half the pupils in the first six grades get very, very little of this type of reading [p. 136].

He reported the enthusiastic reactions of children to easy materials prepared by the W. P. A. Writers Project.

This concern for proper reading materials did not lead to a rapid or thorough-going change in the difficulty of materials supplied to children. Fourteen years after Gates' article Yoakam (1954) cited as comparatively recent the interest in readability which had produced a noticeable effort by writers and publishers to make books more readable for children.

The importance of considering the difficulty of reading material has been recognized by at least some people, but the relationship between difficulty of material and attitude toward reading has been largely overlooked or assumed. The intent of this study was to provide some experimental evidence on the relationship of difficulty of reading material and favorableness of attitude toward reading. Do children prefer easy books for voluntary reading? Are children with a favorable attitude more consistent in choosing easy books? Do children who have been exposed to reading materials which are easier for them have a more favorable attitude toward reading? Difficulty of reading materials may be a factor in children's attitude toward reading.

DIFFICULTY OF MATERIALS AS A FACTOR

The difficulty of reading materials for a child depends on his reading competence. Betts (1957, Chapter 21) defined different levels of reading competence: (a) the independent level, the highest level at which a person can read with ease; 90% comprehension, accurate pronunciation of 99% of the words, good phrasing, no indication of strain; (b) the instructional level, the highest level at which a student can read with instructional help; a minimum of 75% comprehension, accurate pronunciation of 95% of the words, good phrasing, no indication of strain; (c) the frustration level, the level at which a person cannot cope with the material; 50% comprehension, accurate pronunciation of less than 90% of the words, poor phrasing, indication of strain. Betts' technique for determining these levels was to record word errors, answers to comprehension questions, and general behavior as the child read individually. Then the record of the child's oral and silent reading performances was checked against the above criteria.

Nila Smith (1963) advised teachers that in establishing a lifetime interest in reading children often need guidance regarding the difficulty of the reading content when selecting books for

independent reading. In a reading program concerned with children's attitudes toward reading as well as their achievement, Hogenson (1960) reported that his first step was to determine the student's reading level. Then he helped each child select books at his level of reading ability.

Betts felt that children should not encounter problems of word recognition or comprehension in the materials which they read for information or enjoyment. Only in materials for reading instruction should they face such problems and then only in a limited way. This would mean that, except for materials intended specifically for reading instruction, materials supplied a child would be below his instructional level.

There are recent examples showing that this idea is being overlooked. In 1964 a study showed that the reading demands of five series of arithmetic textbooks for Grades 1 to 6 were generally above the level of the grade to which they were assigned (Heddens & Smith, 1964). In another study (Ottley, 1965) science texts of four publishers were examined. The fourth-grade texts were judged too difficult for fourth grade, the fifth-grade texts slightly difficult and the sixth-grade texts best suited to the level for which they were intended. Condit (1959) found few trade books which first-grade and average second-grade youngsters could read with "ease, interest and pleasure."

Some investigators seem to assume that the difficulty of reading material is a factor in the child's attitude toward reading but give it so little mention that it seems unimportant. Newman (1960) described a second-grade reading program which had as a major objective the development of a desire to read. His first step was to use a procedure similar to Betts' (1957, Ch. 21) to determine the level at which each child could read comfortably. Newman's criteria for a child's reading of materials suitable for reading instruction were: good comprehension, enough speed to maintain interest and no more than two word errors per page. He reported that every child did develop a favorable attitude toward reading by the end of the year. Yet when he listed the aspects of his program which might have contributed to this attitude, he did not mention at all that each child had been reading materials which were relatively easy for him. This may have been an important factor in the development of the favorable attitude. Newman (1963) also described a later program in which he did include the ease of material among the factors to which he attributed the development of a favorable attitude toward reading by primary children who could read at the beginning level but did not do so in their spare time. Part of the program was to give the children several easy-to-read books to take home and read.

Russell (1961), Dees (1962), Guilfoile (1963) and others report that the supply of easy-to-read books has greatly increased in the past few years. There are those who do not favor intentionally making books easy to read. Typically these people have strong feelings about the effect on children's attitudes. Davis (1962) said that a story cannot be told effectively with controlled vocabulary and limited sentence length. An editorial in The Elementary English Review (1941) held that overconcern with vocabulary load and sentence complexity bores normal and superior children. Wakeman (1962) deplored limited vocabulary for beginning readers. "It seems to us intellectual taxation without representation, a kind of theft." Jennings (1965) thought children should have challenge in reading material. In referring to children who already know how to read he said, "...boys and girls do not read as much or as well as they might because what they are given to read is so weak and stupid [p. 181]." McGinley (1962) felt that children are not afraid of new words, but that the fact that there is nothing new, strange or mysterious in books coming out will kill children's interest.

Apparently there have been no studies made which explicitly examine the relationship of difficulty of material and attitude toward reading. As a sidelight to his study Russell (1961) reported the comments of first- and second-grade children about easy-to-read trade books which they read independently. The reactions were mainly favorable. The unfavorable comments were about the books being either too hard to too easy.

There are opinions on the effect of easier books on children's attitudes toward reading, but clear evidence is lacking. Some people in the field of reading give advice on the difficulty of reading material for children. Others overlook this advice or assume the importance of difficulty of material and scarcely mention it. Still others concerned with children and books are vehement about the relationship between difficulty of materials and attitudes. To obtain experimental evidence about the relationship it was necessary to measure children's attitude toward reading.

MEASUREMENT OF ATTITUDE

Attitude, as used in this study, is defined as "an emotionalized tendency, organized

through experience, to react positively or negatively toward a psychological object [Remmers, Gage & Rummel, 1965, p. 308]." Of the various dimensions of attitude described by Remmers et al. the one looked at in this study was favorableness, "the degree to which a person is for or against a given attitude object [p. 310]." Favorableness is the dimension most often measured.

Many problems are involved in measuring attitudes. One problem is the susceptibility of attitudes to modification by factors in the immediate environment. Different social situations can elicit different measurable attitudes from the same person. The relationship between the person and the tester can also modify expressed attitude. A second problem is that of response sets. Cronbach (1950) presented evidence which shows that if the form of the test items permits response sets, the test will be diluted and its validity lowered.

Most assessment of children's attitude toward reading has been done through informal observation, as in the studies by Russell (1961) and Newman (1960, 1963). Yet some researchers have tried to measure favorableness of children's attitude toward reading. In a study to find ways of developing a genuine liking for reading in children, Healy (1963) used questionnaires along with observation of reading behavior and pupil responses to compare effects of different treatments on attitude. In a later investigation of the same children, Healy (1965) counted the number of books read during the first semester of the school year as an index of whether the pupils liked to read or not.

Groff (1962) used a modification of Remmers' Scale for Measuring Attitude Toward Any School Subject (Silance & Remmers, 1934) in his investigation of the relationship between attitude toward reading and abilities in content-type materials. The scale includes statements which vary in content from very favorable to very unfavorable and asks the subject to mark those with which he agrees.

Rothrock (1961) used a reading attitude survey as one means of comparing the results of different approaches to reading. His survey includes statements about reading with which to agree or disagree, choices to indicate how often the respondent reads, estimates of the number of books read, and choices between paired activities, one of which is a reading activity.

Sperber (1958) developed a reading attitude inventory blank to evaluate a third-grade individualized reading program. One section asks how many books the subject has read during the year in the reading period. The other section includes 12 questions, each of which is to be answered by choosing from three alternatives. One possible choice is some aspect of reading while the other two choices are some other activity in which an average nine-year-old might engage.

Attitude toward reading was one aspect of a study done by Macdonald, Harris and Rarick (1966), which compared the group to the one-to-one instructional relationship in first-grade basal reading programs. They developed a two-part instrument to measure attitude toward reading. Part One asks children to select a preferred activity from each of a series of paired pictorially represented classroom activities. Part Two asks children to indicate how they feel while reading by marking a continuum defined by pictures. This instrument was judged to have logical and content validity but to need further evidence as to reliability. Kimmey (1966) used the same instrument in conjunction with a count of library books read to measure the attitude of the same children during the beginning of second grade. In endeavoring to measure favorableness of children's attitude toward reading, investigators have used a count of books read, questionnaires, rating scales and forced choice between activities.

HYPOTHESES OF THE STUDY

Although reading experts advise that reading material for children be below their instructional level except for reading instruction, the problem of the level of difficulty of the material to be provided does not seem entirely settled.

In attempting to obtain evidence about the problem four hypotheses were tested in the present investigation. (1) Children choose material below their instructional level as being the type of material they would enjoy reading in their free time. (2) Children who express a favorable attitude toward reading more often pick material below their instructional level as material they would enjoy reading than children who indicate a less favorable attitude. (3) Children who have had easy reading materials available to them indicate a more favorable attitude toward reading than those who have been exposed to materials which are more difficult. (4) Children consider the difficulty of reading material which they choose for free-time reading.

II

METHOD

SUBJECTS

The attitude measuring instrument was administered to 107 pupils, who comprised all the second-grade classes in an elementary school. Twenty children were then randomly selected from those who indicated a favorable attitude toward reading and 20 from children who indicated an unfavorable attitude. These 40 children became the subjects for the study.

ATTITUDE MEASURING INSTRUMENT

The attitude measuring instrument used for the study was developed by adapting the Activity Preference Test used by Macdonald, Harris and Rarick (1966, pp. 34-44) to picture seven leisure-time activities instead of five schoolroom activities. Leisure-time activities in which second-graders typically engage were determined by individually interviewing a sample of 15 children. They were asked what they usually did after school, in the evening, and on Saturdays when they chose the pastime themselves. The specific activities which the children named indicated that for their free time they almost always chose six kinds of activities: playing actively outdoors, watching television, playing actively indoors, playing quietly indoors, playing with a pet, helping a parent. A commercial artist drew black and white line drawings (see Appendix) which portrayed these six activities and reading in settings which the children had indicated in the interview. The picture of each activity was paired once with the picture of every other activity and once with the picture of reading. The resulting 21 pairs of pictures produced a measuring instrument which required the child to make 21 choices, with six opportunities to select reading.

Several steps were taken to minimize some of the problems involved in measuring attitudes. To allay the effects of the social situation, the test was administered in the cafeteria, a room not associated with reading. Also, the tester was a person who had not had contact with the subjects in association with reading, and the test did not seem particularly concerned with reading since each activity appeared an equal number of times. The operation of response sets was minimized. Acquiescence and evasiveness were avoided because the test required the child to make choices from paired activities. Each activity appeared an equal number of times on the left and right in order to reduce chance variance. The test was easy for the children. The test directions were designed to clarify any ambiguity of the pictures. These steps appear to have increased the validity of the Adapted Activity Preference Test.

PROCEDURE

The study was conducted in four phases. First, the Adapted Activity Preference Test was administered. Each child's score was the number of times he had chosen reading out of the six times it appeared in a pair. The scores ranged from zero to six and were arranged approximately in the form of a bell-shaped curve. All the children who scored above the median of three were assumed to have a favorable attitude toward reading and those who scored below, an unfavorable attitude. The 20 children randomly selected from those who scored favorable were referred to as the favorable group and the 20 from those who scored unfavorable as the unfavorable group.

In the second phase each of the 40 children was asked in an individual interview what level of book he thought he would enjoy reading in his free time. During the interview the child was asked if he considered the difficulty of a book when he chose it. The initial part of the interview was designed to focus the child's attention on the difficulty of the material rather than on the interest content of the sample pages. The child was then shown randomly arranged four-page samples, ranging in level from pre-

primer to sixth reader, from a series of readers with which he was not familiar. The pictures were masked as an aid in focusing attention on the reading content. When a child chose a sample, he was encouraged to read a paragraph or two to be sure that he would like to read a book of that level of difficulty.

The third phase of the investigation was to administer an informal reading inventory, using Betts' (1957, Chapter 21) technique and criteria, to each of the children to determine his instructional level in terms of preprimer, primer, first reader, second reader-1, etc. The child's teacher was also asked the level of materials which were used by the child at that time for reading instruction.

Finally, the Adapted Activity Preference Test was again administered to 38 of the 40 subjects. Two subjects were no longer available to the tester. This provided a reliability check, since no effort had been made to change their attitude toward reading in the intervening six weeks.

III

RESULTS AND DISCUSSION

RELIABILITY OF THE ATTITUDE MEASURING INSTRUMENT

When the second scores of the 38 remaining subjects were compared with their first scores on the Adapted Activity Preference Test, the coefficient of correlation was .63. Comparison of the numerical scores revealed that the scores of ten children remained the same. Although sixteen children's scores changed one point, it did not place them on the other side of the median in the opposite category. Twelve scores changed two points. This placed eight children in the opposite category from their original score. Two children's scores changed to place them exactly at the median and two children's scores remained in the same category. No score changed more than two points. The Adapted Activity Preference Test, then, seems to have distinguished two reasonably stable groups.

LEVEL OF MATERIALS CHOSEN

The Kolmogorov-Smirnov test was used to test the first hypothesis that the children's reading choices would be at lower levels than their instructional levels. The children's instructional levels were compared to the levels of the materials which they chose for spare time reading. As shown in Table 1, there was a significant difference ($D = .40$; $p < .01$) in the expected direction. The children did choose material below their instructional level as being the type of material they would enjoy reading in their free time. From this it appears that children prefer easier materials for voluntary reading.

CHOICES OF THE FAVORABLE AND UNFAVORABLE GROUPS

It was reasoned that perhaps some children can better gauge whether a book will be relatively hard or easy for them to read. These children would have been able to choose books which contained stories they could enjoy or from which they could gain interesting information without being bothered by problems with the reading process. Furthermore, the reasoning was that these children would have been enjoying the rewards which reading has to offer without undue effort, so would have formed a more favorable attitude toward reading as a free-time activity.

Table 1

Frequency of Levels of Materials Chosen and of Instructional Levels of All Subjects

	Levels Chosen	Instructional Levels
Preprimer	5	1
Primer	12	2
First reader	6	4
Second reader-1	5	12
Second reader-2	1	10
Third reader-1	1	5
Third reader-2	4	4
Fourth reader	3	1
Fifth reader	1	0
Sixth reader	2	0

The second hypothesis, that the children in the favorable group are more consistent in selecting material below their instructional level, was tested in part by comparing the levels of the choices of the favorable group to their instructional levels (Table 2). The Kolmogorov-Smirnov test showed that there was a significant difference ($D = .35$; $p < .05$) in the direction of their choosing materials below their instructional levels. The children in the favorable group did pick relatively easy materials as representing what they would enjoy reading in their spare time.

Also, in testing the second hypothesis the choices of the unfavorable group (Table 2) were

Table 2

Frequency of Levels of Materials Chosen and of Instructional Levels

	Favorable Group		Unfavorable Group	
	Levels Chosen	Instructional Levels	Levels Chosen	Instructional Levels
Preprimer	2	0	3	1
Primer	4	1	8	1
First reader	4	2	2	2
Second reader-1	3	4	2	5
Second reader-2	1	4	0	6
Third reader-1	0	3	2	2
Third reader-2	2	5	2	3
Fourth reader	2	1	1	0
Fifth reader	1	0	0	0
Sixth reader	1	0	0	0

compared to chance in order to determine whether they were made randomly or by some other means. This group's choices were significantly different ($D = .35$; $p < .05$) from chance. Since the differences were in the direction of the choices being easier than expected, the choices of the unfavorable group were also compared to the group's instructional levels (Table 2) in order to determine if these choices were made on the basis of reading ease. This comparison revealed a significant difference ($D = .45$; $p < .01$) in the expected direction. The children in the unfavorable group also picked relatively easy materials as representing what they would enjoy reading in their spare time. Children in both groups were evidently capable of choosing reading materials which presented them with very few mechanical difficulties.

A few individuals in each group chose materials above their instructional levels. This suggests several questions. Do these children fail to consider the difficulty of materials they choose for reading? Do they not know how to estimate in advance the difficulty of material for reading? If they frequently choose and attempt to read materials which make extreme demands on their reading abilities, will the cumulative effect be a deterioration in favorableness of their attitude toward reading?

Contrary to the original hypothesis, the difference between the levels chosen and the instructional levels was greater for the unfavorable group ($p < .01$) than for the favorable group ($p < .05$). As a further test of the second hypothesis, the levels of choices of the two groups (Table 2) were compared to determine if either group was choosing easier materials than the other since, as shown later, no significant difference was found between the instructional levels of the two groups. No significant difference was found; however, all the differences between the levels of choices of the two groups were in the direction of the unfavorable group choosing easier materials than the favorable. Contrary to the second hypothesis, there appears to have been a trend for the unfavorable group to be more consistent in picking easier reading materials. A possible explanation is that since those in the unfavorable group do not like reading as well they are unwilling to put as much effort into the activity.

MATERIALS AVAILABLE TO THE TWO GROUPS

The third hypothesis was tested by comparing the instructional levels of the children in the favorable group with those of the children in the unfavorable group (Table 2). The assumption was that children with a higher instructional level have had access to reading material which was relatively easier for them than children in the same class who have a lower instructional level. The subjects' instructional levels ranged from preprimer to fourth reader while the materials which they were using for reading instruction at the time of the study ranged from first reader to sixth reader. Therefore, the children with an instructional level of preprimer or primer had access to texts and library books which presented many reading difficulties for them. On the other hand, those with an instructional level of third reader-2 or fourth reader were

coming in contact with materials which were relatively easy for them.

No significant difference was found when the instructional levels of the two groups were compared by the Kolmogorov-Smirnov test. This shows that, as a group, those who expressed a favorable attitude toward reading were not better readers than those who expressed an unfavorable attitude. It seems that having relatively easy materials available was not a significant factor in forming the attitude of the favorable group, and that being exposed to relatively difficult materials was not a significant factor in forming the attitude of the unfavorable group. To check this idea further the instructional levels of the two groups (Table 2) were compared to the levels of materials which they were using for reading instruction at the time (Table 3). There was the possibility that the unfavorable group was using materials for reading instruction which were too difficult. There was no significant difference, using the Kolmogorov-Smirnov test, between the instructional levels of either group and the levels of the materials which they were using for reading instruction.

Table 3

Frequency of Levels of Materials Being Used for Reading Instruction

	Favorable Group	Unfavorable Group
Preprimer	0	0
Primer	0	0
First reader	1	3
Second reader-1	11	9
Second reader-2	3	5
Third reader-1	1	0
Third reader-2	2	1
Fourth reader	0	2
Fifth reader	1	0
Sixth reader	1	0

It appears that the materials to which children have been exposed is not a significant factor in determining their attitude toward reading at this point in their schooling when a reasonably successful effort has been made to match their reading materials to their reading levels. Are there factors in this situation which would cumulatively affect the child's attitude by the time he reaches the intermediate or upper grades? Apparently there is a trend for those in the favorable group to be willing to put more effort into reading than those in the unfavorable group. Perhaps the cumulative effect of several more years effort would be that those with a favorable attitude would be better readers.

Table 4

Frequency of Response about Consideration of Difficulty of Material

Response	Favorable Group	Unfavorable Group	Total
Yes	18	13	31
No	2	7	9

$\chi^2 = 3.58$
$p < .10$ $df = 1$

CHILDREN'S CONSIDERATION OF THE DIFFICULTY OF MATERIALS

When asked if they considered the difficulty of materials when making choices for leisure reading, 77.5% of the children said yes they did and 22.5% said no they did not. As shown in Table 4 the chi square test was used to determine if more children from the favorable or unfavorable group said they considered the difficulty of the materials. There seems to be a trend ($p > .05 < .10$) for those with a favorable attitude more often to say they think about the difficulty of the books which they choose to read. Their apparent willingness to expend greater effort on reading thus appears to include a more conscious or more willingly admitted consideration of difficulty.

The levels of materials chosen by the yes group, or all the children who reported they did consider the difficulty of materials, were compared with their instructional levels (Table 5) to determine if they chose easier books. The Kolmogorov-Smirnov test showed that the levels of the choices of the yes group did differ significantly from their instructional levels in the direction of being easier ($D = .387$; $p < .01$). It seems that these children did actually consider the difficulty of the material they chose as being what they would enjoy for voluntary reading and that they preferred the easier material. The levels of the choices of the no group, or all the children who reported they did

Table 5

Frequency of Levels of Choices and Instructional Levels According to Self-Report of Consideration of Difficulty

	Yes Group		No Group	
	Levels Chosen	Instructional Levels	Levels Chosen	Instructional Levels
Preprimer	2	0	3	1
Primer	10	2	2	0
First reader	4	2	2	2
Second reader-1	4	7	1	2
Second reader-2	1	9	0	1
Third reader-1	1	3	0	2
Third reader-2	3	7	1	1
Fourth reader	3	1	0	0
Fifth reader	1	0	0	0
Sixth reader	2	0	0	0

not consider the difficulty of material, were compared to chance to determine if their choices were selected randomly or by some other means. Their choices, too, were significantly different from chance ($D = .489$; $p < .05$). The levels of their choices were then compared to their instructional levels (Table 5) to determine if they were considering difficulty but did not realize or would not admit it. The Kolmogorov-Smirnov test again showed that there was a significant difference in the direction of their choices being easier ($D = .444$; $p < .05$). Evidently the children did look for ease of reading material whether they said so or not. The fourth hypothesis appears to be confirmed.

IV

SUMMARY AND IMPLICATIONS

The relationship between difficulty of reading material and attitude toward reading was examined in this study. An instrument developed to measure attitude toward reading was administered to four second-grade classes. The instructional reading levels and levels of materials considered enjoyable were determined for twenty subjects scoring favorable and twenty scoring unfavorable on the attitude test. The levels of their instructional reading materials and their report of consideration or non-consideration of difficulty were recorded.

Statistical tests of the data revealed several relationships. The children chose easier materials as being enjoyable with a trend for the unfavorable group to do so more consistently. The materials to which the children had evidently been exposed were not a significant factor in determining their attitude. The children apparently considered the difficulty of the materials whether they said so or not.

Since the results of this study have shown that children do consider difficulty of material and do choose relatively easy books as representing what they would enjoy for leisure reading, voluntary reading does not seem an appropriate area for challenging children's reading skills. It seems that those of us who choose the books which are made available to children should be certain that children at the beginning levels in school have access to books which are relatively easy. However, the results of this study also indicate that factors other than the difficulty of the materials to which they have had access have formed the favorableness of children's attitude toward reading at this level. We, therefore, should not restrict children to relatively easy books since this restriction might conflict with whatever other factors dispose them favorably toward reading.

APPENDIX

THE ADAPTED ACTIVITY PREFERENCE TEST

The intent of the test as stated to the children is to find out what boys and girls like to do in their spare time. Give the following directions for the first page:

> Here are two pictures. Pretend you are the person in the first picture. What are you doing? (playing outside) What would you be playing? Would someone else tell us what they would be playing? Would someone be playing something different? Look at the other picture. What are you doing here? (playing something active indoors) What would you be playing? Would someone else tell us what they would be playing? Would someone be playing something different?
>
> Which of these two things do you like to do best: play outside or play inside like this? Don't tell me but show me by putting a big X on the picture of what you like to do best. Turn to the next page.

Use the above directions for each picture the first time it appears. The discussion of each picture the first time is intended to get the child to project himself into the pictured situation and to indicate to him that the picture defines a general category but the exact occupation is to be his own favorite activity. After a picture has been discussed once, say:

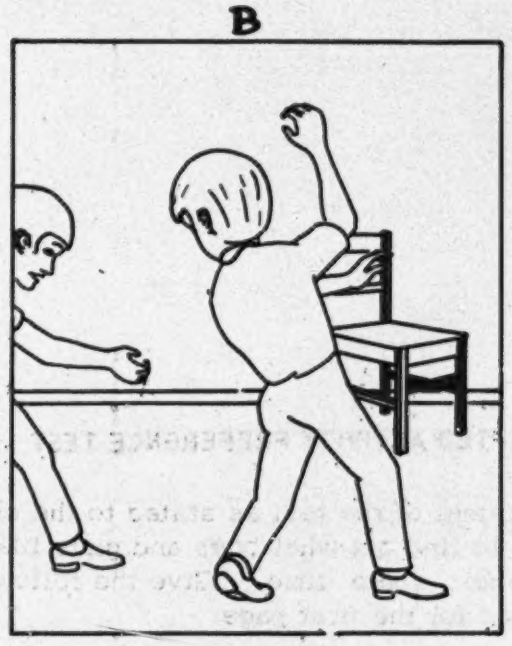
> We've seen this (these) picture(s) before. Which of these two things do you like to do best: _____ or _____? Mark the picture.

The seven pictures used in the test are reproduced on the page that follows (40% of original size). Each picture is designated by an upper case letter. The following pairs of pictures were presented to the subjects:

AB	AC	FG
CD	ED	BG
EA	BE	DB
EF	FC	AD
CB	DF	BF
CE	GA	DG
FA	GC	GE

A

B

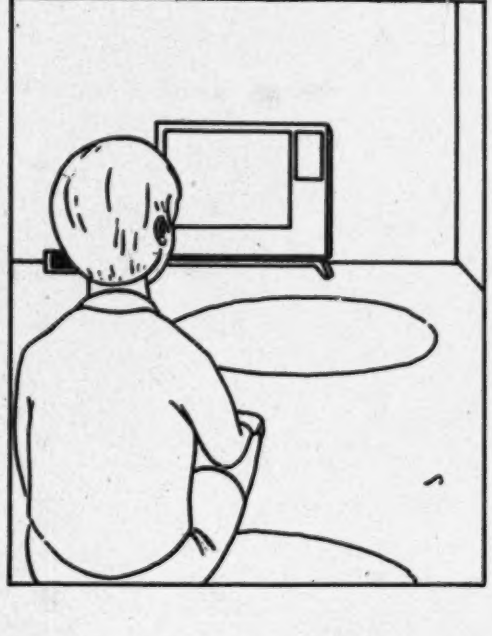


C

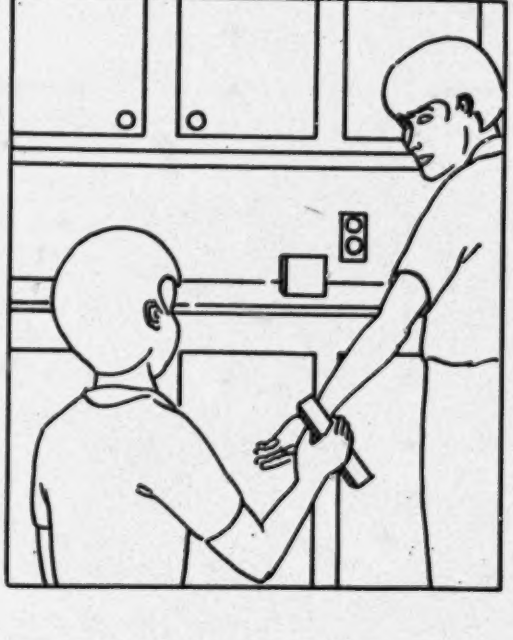
D

E

F



G



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